

# PATENT ABSTRACTS OF JAPAN

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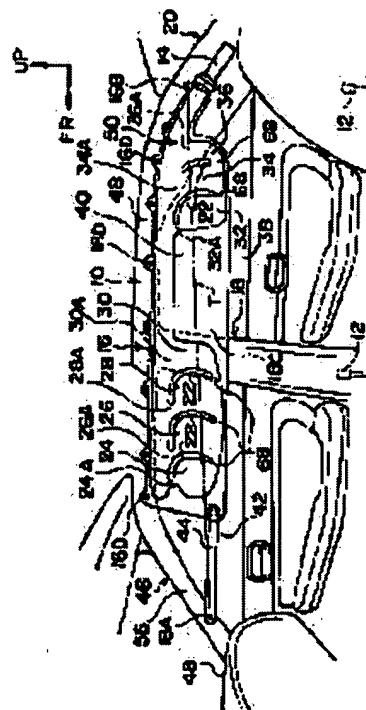
## (54) HEAD PROTECTING AIR BAG DEVICE

### (57)Abstract:

PROBLEM TO BE SOLVED: To smoothly expand an air bag body even in the case of an occupant being positioned close to the side part of a cabin.

SOLUTION: A part, arranged along a C-pillar 20 and a roof side rail 48, of an air bag body 16 is formed as a gas introducing passage 50 for feeding gas into each of expansion chambers 36, 34, 32, 30, 28, 26, 24.

Openings 36A, 34A, 32A, 30A, 28A, 26A, 24A communicated with the gas introducing passage 50 are formed at the upper parts of the respective expansion chambers. The openings 30A, 34A, 36A for feeding gas to the expansion chambers 30, 34, 36 in an area overlapped with a B-pillar 18 and the C-pillar 20 are set larger than the openings 24A, 26A, 28A, 32A for feeding gas to the other expansion chambers 24, 26, 28, 32.



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decision of rejection]

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**CLAIMS**

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[Claim(s)]

[Claim 1] The sensor which detects at least one of side \*\* of a car, and the rollovers, Ranging over a roof side, it is stored with the inflator which operates based on the output signal of this sensor from a pillar. In head protection air bag equipment equipped with the curtain-like air bag bag body with which two or more expansion chambers were formed in the direction which intersects the tension line with which the body flank order fixed point is contracted of the non-expanding section Head protection air bag equipment characterized by having a gas supply means for expanding previously the expansion chamber of a field which laps at least with one side of B pillars and C pillars in said air bag bag body compared with other expansion chambers.

[Claim 2] Said gas supply means is head protection air bag equipment according to claim 1 with which it is characterized by the large thing compared with the area of opening by which the area of opening which supplies gas to the expansion chamber of a field which consists of the gas installation path connected to the inflator and opening which supplies gas to each expansion chamber from this gas installation path, and laps at least with one of B pillar and the C pillars supplies gas to other expansion chambers.

[Claim 3] It is head protection air bag equipment according to claim 1 which said gas supply means consists of the gas installation path which is connected to said inflator and supplies gas to each expansion chamber, and the inner tube for reinforcement arranged in this gas installation path, and is characterized by said inner tube supplying gas to the expansion chamber of a field which mainly laps at least with one of B pillar and the C pillars.

[Claim 4] Head protection air bag equipment according to claim 1 to 3 characterized by having the lower free passage section for supplying gas to other expansion chambers from the expansion chamber of a field which laps at least with one of B pillar and the C pillars while opening the lower part of each of said expansion chamber for free passage mutually.

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[Translation done.]

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## DESCRIPTION OF DRAWINGS

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### [Brief Description of the Drawings]

[Drawing 1] In the head protection air bag equipment concerning the 1st operation gestalt of this invention, it is the outline side elevation seen from the vehicle interior-of-a-room side which shows the condition that the air bag bag body carried out expansion expansion.

[Drawing 2] In the head protection air bag equipment concerning the 1st operation gestalt of this invention, it is the expansion side elevation seen from the vehicle interior-of-a-room side which shows the air bag bag body posterior part in the condition that the air bag bag body carried out expansion expansion.

[Drawing 3] It is an expanded sectional view in the condition of having stored the air bag bag body which met three to 3 line of drawing 2.

[Drawing 4] It is an expanded sectional view in the condition of having stored the air bag bag body which met four to 4 line of drawing 2.

[Drawing 5] In the head protection air bag equipment concerning the 1st operation gestalt of this invention, it is the outline side elevation seen from the vehicle interior-of-a-room side which shows the storing condition of an air bag bag body.

[Drawing 6] In the head protection air bag equipment concerning the 1st operation gestalt of this invention, it is the graph which shows time amount change of the capacity of the expansion interior of a room.

[Drawing 7] In the head protection air bag equipment concerning the modification of the 1st operation gestalt of this invention, it is the outline side elevation seen from the vehicle interior-of-a-room side which shows the condition that the air bag bag body carried out expansion expansion.

[Drawing 8] In the head protection air bag equipment concerning the 2nd operation gestalt of this invention, it is the outline side elevation seen from the vehicle interior-of-a-room side which shows the condition that the air bag bag body carried out expansion expansion.

[Drawing 9] In the head protection air bag equipment concerning the modification of the 2nd operation gestalt of this invention, it is the outline side elevation seen from the vehicle interior-of-a-room side which shows the condition that the air bag bag body carried out expansion expansion.

[Drawing 10] It is the outline side elevation showing the expansion condition of the air bag bag body in the head protection air bag equipment concerning the conventional operation gestalt.

### [Description of Notations]

10 Head Protection Air Bag Equipment

12 Sensor

14 Inflator

16 Air Bag Bag Body

18 B Pillar (Center Pillar)

20 C Pillar (Quarter Pillar)

22 Non-Expanding Section

24 Other Expansion Chambers

24A Opening (gas supply means)  
26 Other Expansion Chambers  
26A Opening (gas supply means)  
28 Other Expansion Chambers  
28A Opening (gas supply means)  
30 Expansion Chamber of Field Which Laps with B Pillar  
30A Opening (gas supply means)  
32 Other Expansion Chambers  
32A Opening (gas supply means)  
34 Expansion Chamber of Field Which Laps with C Pillar  
34A Opening (gas supply means)  
36 Expansion Chamber of Field Which Laps with C Pillar  
36A Opening (gas supply means)  
46 A Pillar (Front Pillar)  
48 Roof Side Rail  
50 Gas Installation Path (Gas Supply Means)  
68 Lower Free Passage Section  
72 Head Protection Air Bag Equipment  
74 Inner Tube (Gas Supply Means)  
76 Opening  
80 Head Protection Air Bag Equipment

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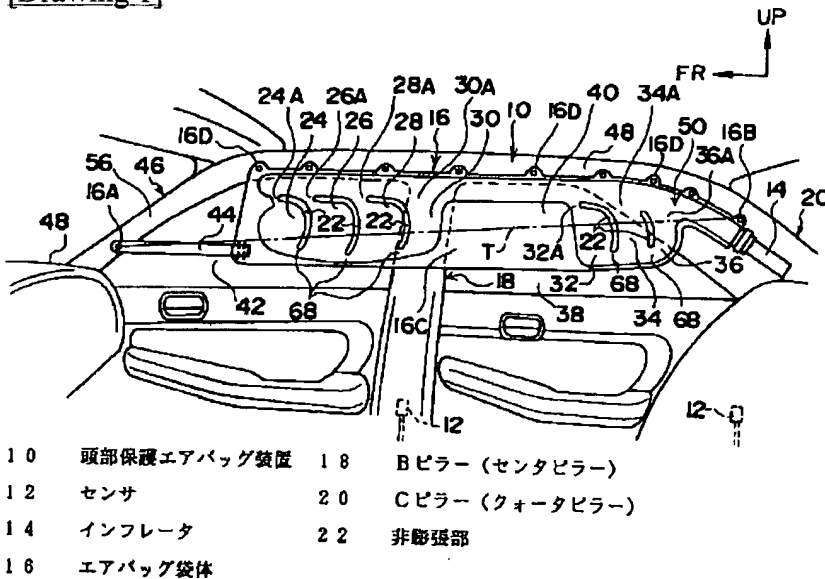
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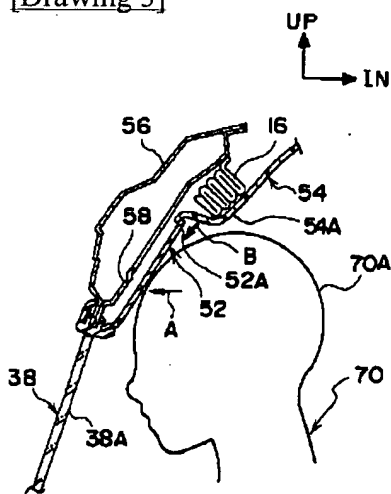
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## DRAWINGS

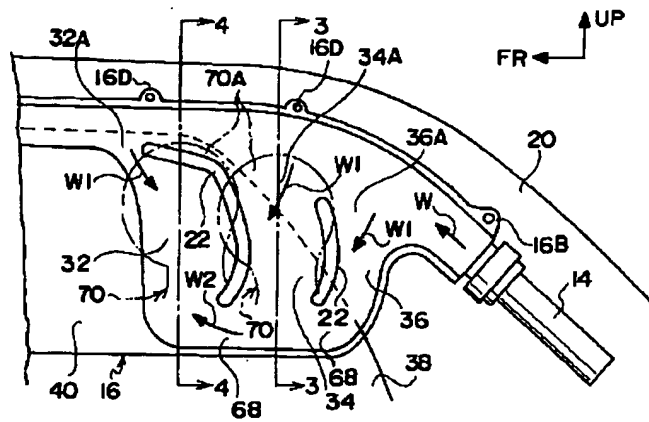
[Drawing 1]



[Drawing 3]

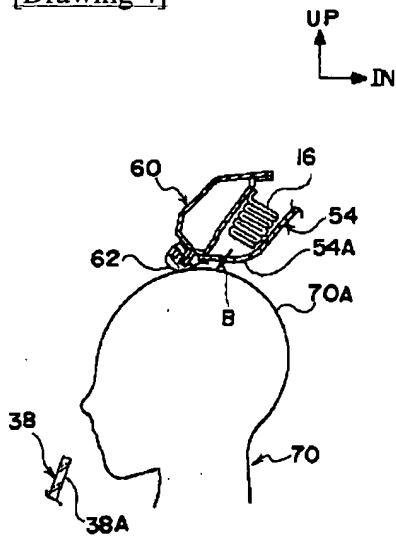


[Drawing 2]

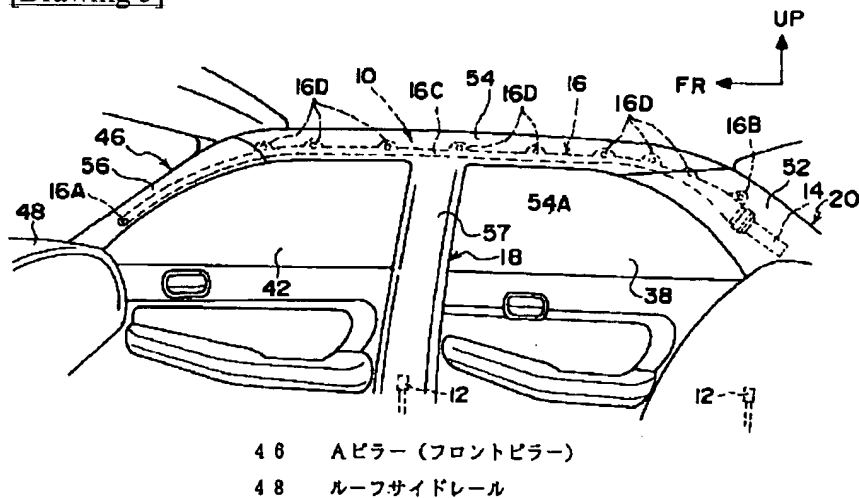


- 32 他の膨張室                      34 A 開口 (ガス供給手段)  
 32 A 開口 (ガス供給手段)      36 Cピラーに重なる領域の膨張室  
 34 Cピラーに重なる領域の膨張室 36 A 開口 (ガス供給手段)

[Drawing 4]

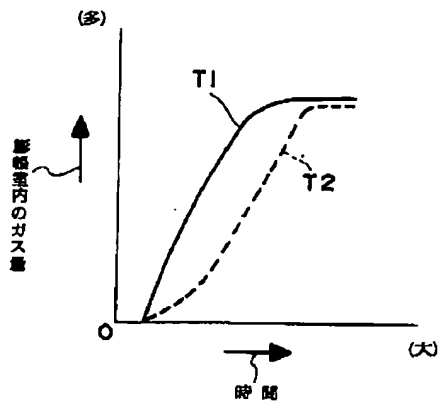


[Drawing 5]

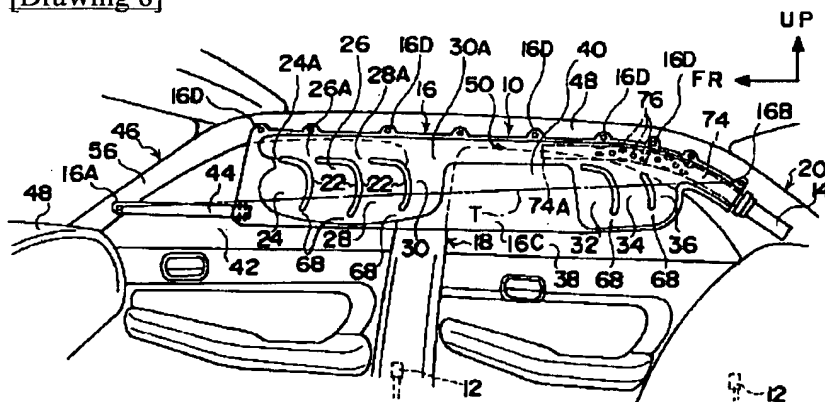


[Drawing 6]



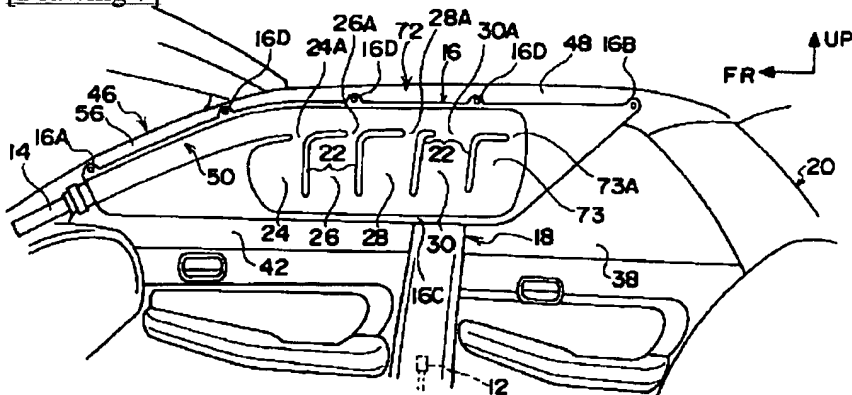


[Drawing 8]



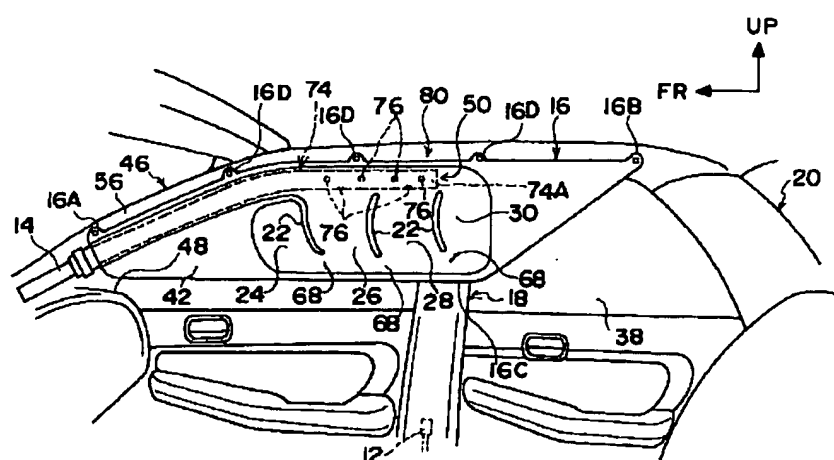
- 74 インナチューブ (ガス供給手段)  
76 開口

[Drawing 7]



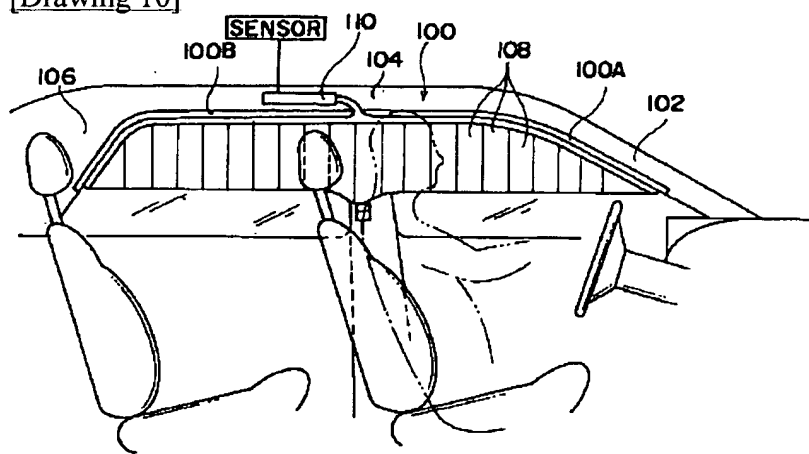
- |                 |                 |                    |
|-----------------|-----------------|--------------------|
| 24 他の膨張室        | 28A 開口 (ガス供給手段) | 30 Bピラーに重なる領域の膨張室  |
| 24A 開口 (ガス供給手段) | 30A 開口 (ガス供給手段) | 50 ガス導入通路 (ガス供給手段) |
| 26 他の膨張室        | 72 頭部保護エアバッグ装置  |                    |
| 28A 開口 (ガス供給手段) |                 |                    |
| 28 他の膨張室        |                 |                    |

[Drawing 9]



80 頭部保護エアバッグ装置

[Drawing 10]



[Translation done.]